

Patent
Attorney Docket No.: P50-0048

REMARKS

Restriction Requirement under 35 U.S.C. 121

The Examiner found that the pending application contained claims directed to the following patentably distinct species:

- I: the embodiment in which the turbulence generator is in the form of an aperture; and
- II: the embodiment in which the turbulence generators are in the form of an air deflector on a wall.

Applicant hereby confirms the earlier provisional election that was made without traverse to prosecute the invention of species I.

Rejections under 35 U.S.C § 102(b)

Claims 1-3 and 5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,364,167 of Scott or U.S. Patent No. 2,357,960 of Kuster, *et al.* Scott discloses an apparatus useful for curing tires that includes a substantially spherical curing vessel. (Scott, col. 1, lines 47-51). Likewise, Kuster discloses a kettle useful for curing tires that includes a pair of substantially semi-spherical heated insulated shell sections. (Kustler, col. 1, lines 40-45).

Applicant claims an autoclave for curing a tread strip, the autoclave comprising, *inter alia*, an elongated chamber having a frame for supporting tire casing and tread assemblies. (Claim 1). Applicant uses the adjective elongated as it is commonly used and defined by the Merriam-Webster online dictionary, *i.e.*, slender, which is further defined as being small or narrow in circumference or width in proportion to length or height.

MPEP § 2131 provides:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990).

Patent
Attorney Docket No.: P50-0048

Applicant respectfully asserts that a *prima facie* case of anticipation has not been provided because the cited prior art references fail to disclose each and every element as set forth in the claim. Specifically, the cited prior art references fail to disclose, either expressly or inherently, an elongated chamber. Instead, both Kustler and Scott disclose only a spherical chamber, which is not an elongated chamber.

Applicant respectfully requests reconsideration and withdrawal of the rejection, which is based upon the cited prior art of Kustler and Scott, of independent claim 1 as well as dependent claims 2, 3 and 5 that depend therefrom.

Claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 1,420,371 of Emmons. Applicant has amended claim 1 to include the limitations of claim 2. Since claim 2 was not included in this rejection, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 1.

Rejections under 35 U.S.C. § 103(a)

Claims 1-3 and 5 stand rejected under 35 U.S.C. 102(a) as being unpatentable over the admitted state of the prior art taken in view of U.S. Patent No. 3,605,717 of Sauer and optionally, further in view of U.S. Patent No. 2,357,960 of Kuster, *et al.*

Sauer discloses a convection oven used for heating food. (Sauer, Abstract). These disclosed ovens are relatively small and are disclosed as having a volume of about 24 cubic feet. (Sauer, col. 5, lines 19-21). Sauer discloses baffle plates 21 that are spaced from and parallel to the adjacent walls and are preferably supported on posts. (Sauer, col. 3, lines 35-38). The baffle plates 21 may have openings (as shown in FIG. 2) to permit secondary air circulation from the side passages into the central portion of the food processing chamber to ensure temperature uniformity through the space containing the food. (Sauer, col. 3, lines 45-50).

Kuster discloses a kettle suitable for use to cure tires. (Kuster, col. 1, lines 1-5). The disclosed kettle includes a wall 3 that forms a chamber 4 between the wall 3 and the interior of the shell. (Kuster, col. 2, lines 1-12). Air flows through the chamber 4 from the fan discharge and then, when the pressure is high enough, through the perforations in the wall 4.

Patent
Attorney Docket No.: P50-0048

col. 1, line 50 – col. 3, line 5). The gas escapes through the perforations in the form of small streams that initially move substantially radial of the kettle. *Id.*

Applicant claims a supply duct having an inlet and outlet at opposite ends and an air flow turbulence generator comprising at least one aperture formed on a wall of the supply duct to guide air from the duct into the chamber in a direction disruptive to the main air flow in the chamber. (Amended claim 1, which includes the limitations of original claims 1 and 2).

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

Applicant respectfully asserts that a *prima facie* case of obviousness has not been presented because the cited prior art fails to teach or suggest all the claim limitations of the claimed invention. The cited prior art fails to teach or disclose at least one aperture formed on the wall of the supply duct to guide air from the duct into the chamber in a direction disruptive to the main air flow in the chamber.

In both of the cited prior art cases, the apertures are formed in their respective parts for the purpose of providing the *main air flow* in the chamber. It should be noted that in neither cited art reference are these apertures formed in a wall of the duct having an inlet and an outlet at opposite ends, which is a limitation claimed by Applicant.

The apertures of the cited prior art do *not* guide air from a duct into the chamber in a direction that is *disruptive to the main air flow in the chamber* as claimed in Applicant's invention. Looking first at Kuster, the perforations in the wall of the chamber in which the tires are placed for curing are freely distributed throughout its extent for the passage of air therethrough. (Kuster, col. 2, lines 5-10). These perforations instead provide the main air flow through the chamber and therefore, the flow therethrough is not disruptive to the main air flow through the chamber.

Looking next at Sauer, Sauer discloses baffles that are used to direct the flow of hot air through a convection oven. The baffles are not closed at the top or the bottom of the baffle so air flow is allowed to circulate over the top and under the bottom of the baffle, as well as at the end of the baffle. Therefore, Sauer does not disclose an air supply duct as claimed by Applicant and therefore, cannot teach or disclose forming apertures on the wall of a supply

Patent
Attorney Docket No.: P50-0048

duct to guide air from the duct into the main chamber in a direction disruptive to the main air flow in the chamber, which is a limitation of Applicant's claimed invention. Similar to the perforations of Kuster, Sauer teaches that the baffles may be perforated with numerous holes. (See, Sauer, FIG. 2). These numerous holes distribute air all across the interior of the convection oven and provide no teaching or suggestion that this flow is anything other than a major portion of the total flow through the oven.

Therefore, because the cited prior art fails to teach or suggest (1) a duct; (2) at least one aperture formed on a wall of the duct to guide air from the duct into the chamber *in a direction disruptive to the main air flow in the chamber*, Applicant respectfully asserts that a *prima facie* case of obviousness has not been presented. Reconsideration and withdrawal of the rejection of independent claim 1, as well as those claims depending therefrom, is respectfully requested.

Claims 1-4 stand rejected under 35 U.S.C. 102(a) as being unpatentable over the admitted state of the prior art taken in view of U.S. Patent NO. 4,974,663 of Nakaji. Nakaji discloses a method for circulating a gas in an autoclave that includes guide blades located at the outlet of the duct that circulates that air through the autoclave. (Nakaji, Abstract). These guide blades impart a swirling motion to the gas going out of the outer duct so that the gas is directed to flow through the inside of the wind tunnel with the swirl. *Id.*

Applicant claims an air flow turbulence generator comprising at least one aperture formed on a wall of the supply duct to guide air from the duct into the chamber in a direction disruptive to the main air flow through the chamber. (Claim 1 as amended to add the limitations of original claim 2).

Applicant respectfully asserts that a *prima facie* case of obviousness has not been presented because the prior art fails to teach or suggest each and every limitation as claimed by Applicant. There is no teaching or suggestion in the cited prior art of an aperture formed on a wall of the supply duct to guide air from the duct into the chamber in a direction disruptive to the main air flow through the chamber. The Examiner states that the "adjacent plates are considered to define an aperture therebetween as required by claim 2." (Office Action, p. 6, ¶ 10).

Patent
Attorney Docket No.: P50-0048

There are two problems with this statement by the Examiner. First, Applicant does not claim an aperture formed between the sides of the duct but instead, claims an "aperture formed *on the wall* of the supply duct." (Claim 1 as amended to include the limitations of claim 2). An aperture formed on the wall of the supply duct is not the same as one formed between the walls of the supply duct. Secondly, the "aperture" formed between the walls of the supply duct direct the main flow of the air into the chamber and is not in a direction that is disruptive to the main air flow through the chamber.

The Examiner also states that the aperture is midway of the airflow from the fan and back to the fan, stating that such a flow describes the limitation of claim 3. Applicant respectfully disagrees because claim 3 states that the aperture is formed midpoint of the main air flow *in the chamber*. Air flow through the duct work is not "in the chamber" and therefore, regardless of the fact that the "entire flow begins and ends at the fan," Applicant's claim only addresses the flow "through the chamber."

Therefore, because the cited prior art references fail to teach or suggest each and every limitation claimed by Applicant, Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claim 1 as well as all claims depending therefrom.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,364,167 of Scott or U.S. Patent No. 2,357,960 of Kustler, *et al.* or the admitted view of the prior art taken in view of U.S. Patent No. 3,605,717 of Sauer and optionally further in view of U.S. Patent No. 2,357,960 of Kustler, *et al.* as applied above, and further in view of U.S. Patent No. 4,490,110 of Jones.

In view of the remarks above pursuant to independent claim 1, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim s

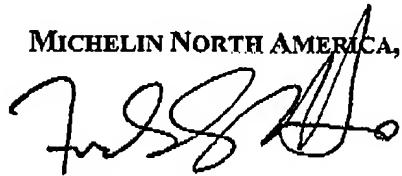
Applicant respectfully asserts that all claims are now in condition for allowance and requests the timely issuance of the Notice of Allowance. If the Examiner believes that a telephone interview would expedite the examination of this pending patent application, the Examiner is invited to telephone the below signed attorney at the convenience of the Examiner. In the event there are any fees or charges associated with the filing of these

Patent
Attorney Docket No.: P50-0048

documents, the Commissioner is authorized to charge Deposit Account No. 13-3085 for any necessary amount.

Respectfully submitted,

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